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COMPLETE SPECIFICATION

Compositions Containing Dimethyl Sulphoxide

We, AMERICAN HOME PRODUCTS CORPORATION, a corporation organised and existing under the laws of the State of Delaware, United States of America, of 685 Third Avenue, New York 17, New York, United States of America, do hereby declare the invention for which we pray that a patent may be granted to us and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to compositions containing dimethyl sulphoxide. These compositions are capable of producing controlled amounts of heat when brought into the presence of water. By controlled amounts of heat in this specification is meant that broadly the heat release is not excessively great, and so does not cause damage to the surface to which it is applied.

Mixtures of dry chemical agents which react rapidly with water to provide large amounts of heat have been in common use for a long time in compositions for cleaning of grease-clogged drains; in so-called fireglass cookers, particularly of the type comprising combination containers having separate compartments for the dry chemical agent and for the food to be heated; in certain welding and sealing compounds; and for other similar purposes in which the generation of comparatively large amounts of heat is required to bring a localised area to a high temperature, frequently well above the boiling point of water.

Certain known dry mixtures frequently employed for the above purposes include as their essential heat-producing ingredients aluminium and an alkaline agent, such as sodium or potassium hydroxide. Other ingredients are often included for their oxidising and heat-generating characteristics for example sodium nitrate, potassium chromate and sodium chlorite. The addition of water to these mixtures causes at least the aluminium and alkali to react rapidly to the extent that the evolution of heat is accompanied by agitation. Thus, heat-evolving reactions of this type are of an inherently violent, and in a sense, uncontrollable nature.

Undoubtedly, the dry heat-evolving compositions referred to above are of great utility for the general purposes referred to previously. However, they cannot even be considered for production of heat of the order that may be usable as a practical expedient in preparations which are to be applied directly adjacent the skin of a human being. Such preparations include, for example, soap, shampoo and pharmaceutical products intended for topical application, all of which may otherwise be unpleasant to the touch when applied cold to the skin of the user. The soap products referred to comprise those of the cleasing variety, as well as those used as or in shaving preparations. The pharmaceutical products may, in certain instances, be of use when applied to for example the buccal cavities, or upon ingestion.

Of particular interest and popularity in the shaving preparation field are the many shaving compositions now packaged in aerosol containers, probably because of such inherent advantages as ease of dispensing for application to the face, curtailment of waste and hence economical use, and minimal cleaning up after use. Of similar interest and popularity are the shaving soaps and pastes usually packaged in jars and squeeze tubes, respectively. Conventionally, these shaving compositions are taken or dispensed from the container directly onto the hand of the user for application to the wetted face, or in some

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instances, onto a shaving brush which may be wetted beforehand. As is well known, the use of cold water for the wetting operation *per se* results in shaving discomfort and inferior shaving results. In certain instances, the shaving compositiions may actually need to have applied thereto a quantity of warm water to permit even the formation of the desired lather prior to the shaving operation. In such cases, it is normally quite difficult, if not impossible, to work up the proper lather necessary to obtain a comfortably close shave without warm water. This disadvantage is additive to the normal shaving discomfort when cold water is used with any shaving cream whether self-lathering or latherless.

In the use of any type of shaving composition even when hot water may be available, it is frequently difficult and at least a nuisance to bringe uncomfortably hot water to the comfortably usable temperature by admixture with cold water, particularly since the usual wash basin has two separate taps. One attempt to solve the problem with respect to controllably heated lathers has been the use of electrically heated lather dispensers. The initial cost of these devices coupled with the cost of their use for the intended purpose in the consumption of electrical power has caused these devices to be used substantially in public barber shops where the extensive use may justify the expense. In another attempt to solve the problem, the containers for the shaving preparations have been provided with metal spouts which are intended to furnish a heat reservoir capacity. Apart from the fact that such containers require an independent source of water to supply the desired heat, the devices are highly inefficient, a nuisance to use, and add unnecessarily to the cost and weight of each container.

The invention provides a composition of matter capable of producing heat on being mixed with water comprising dimethyl sulphoxide and a substantially non-aqueous gelling substance or soap, the dimethyl sulphoxide being present in an amount of 20 to 95% by weight of the total weight of the composition.

The remainder of the composition apart from the dimethyl sulphoxide is hereinafter generally referred to as the "substantially non-aqueous component", and is made up wholly or partly of the gelling substance or soap.

It is possible for the "substantially non aqueous" component to contain some water but the amount of water present must be sufficiently small for the composition to be capable of evolving heat on water subsequently being added. A great advantage of the invention is that the compositions produce a controlled amount of heat on being mixed with water.

The compositions of the invention can be in forms ranging from liquids, creams and pastes to gels and solids. In some forms the compositions can be used in preparations applicable to the skin or mucosa of human beings. Thus certain of the compositions are useful for inclusion in shaving soap preparations, particularly those suitable for packaging in and dispensing from aerosol containers, whereby when cold water is admixed therewith, heat is evolved to provide a proper temperature for providing comfort to the user and in some instances, for forming the required lather. Moreover, certain shaving soap lather preparations can be provided which have self-heating characteristics without causing the breaking down of the bubbles of the soap lather due to the heating. Yet again shaving soaps can be provided which also provide the salutary effect of functioning as a pleasant astringent.

Furthermore non-toxic compositions which are useful in pharmaceutical compositions intended for either topical or internal applications are also provided by the invention.

We have found that, surprisingly, when the non-aqueous compositions of the present invention are contacted with water, the temperatures of such compositions can be raised to a marked degree. For instance, it has been found that dimethyl sulphoxide may be included with the non-aqueous component in a concentration as low as 20% by weight of the total composition to obtain elevated temperatures upon admixture with water. Also, the concentration of dimethyl sulphoxide may be raised as high as 95% by weight of the total composition, if desired, without detrimental effect other than loss of economy. It has been found that even in such a high proportion of the dimethyl sulphoxide to the non-aqueous component, upon addition of water, the temperature rises from 65°F., for example, to no higher than 130°F. which is appreciably below the boiling point of water. Such a composition is completely safe for either external or internal use by humans.

The non-aqueous component is present in a proportion of from 5% to 80% and preferably from 15% to 75% by weight of the total composition and the dimethyl sulphoxide is present in a proportion of 20% to 95% preferably from 25% to 85% by weight of the total composition.

As a practical matter, however, the proportion of dimethyl sulphoxide included in the substantially non-aqueous component is preferably from 50 to 90% by weight of the total composition, in order to obtain temperatures of, 110°—125°F.

In the usual aerosol shaving soap compositions, as presently obtainable commercially, an amount of water of the order of about 75 to 85% is usually included as vehicle for the conventional soap components and other additives. In accordance with the invention, the water is omitted and is replaced by an equiva-

lent amount of dimethyl sulphoxide or, in some instances, a non-aqueous mixture of a suitable organic compound (e.g. alcohol, glycol, polyethylene glycol, polypropylene glycol, dipropylene glycol) and dimethyl sulphoxide in which the dimethyl sulphoxide preferably represents a minimum of 20% by weight of the total aerosol shaving cream composition.

Upon addition of water to compositions containing dimethyl sulphoxide to the extent of about 55% by weight thereof, the temperature may rise, for example, to 100°F.

In certain instances, it has been found that, due to the internal evolution of heat, the bubbles of the aerosol lather have a tendency to break, whereby one of the desirable advantages of the use of such compositions, i.e., a heightened propensity for lathering, may be somewhat minimized. However, and as another aspect of the invention, it has been found that if there is included in the dimethyl sulphoxide-containing aerosol shaving soap compositions an amount of a polyhydric alcohol up to 15% by weight of the total composition, and preferably between 3 and 7%, the bubbles of the aerosol shaving soap appear to have their elasticity appreciably enhanced since they do not break during the evolution of heat caused by the ultimate addition of water. For example, glycerine, propylene glycol and dipropylene glycol have been found to be particularly useful for such purpose, particularly since they also function as solubilisers and co-solvents for the other ingredients of the compositions.

Other additives may desirably be included for the purpose of enhancing various characteristics of the aerosol shaving creams containing dimethyl sulphoxide. For example, commercially obtainable foam stabilisers, e.g. Promulgen, a polyethylene ether complex of a higher molecular weight fatty alcohol, Miranol, an ionically balanced amphoteric surfactant, and amine condensates of fatty acids, may be included in minor proportions. Lubricants, e.g. the glyceryl esters may be included advantageously, as may skin conditioners, e.g. lanolin, and emollients e.g. cetyl alcohol which also aid in foam stabilisation. Preferably, glyceryl monostearate may be included since it also serves as a foam stabiliser. A small amount of a suitable perfume may be included to provide a pleasant odour, and similarly, a flavouring material may be added to provide a more pleasant taste in the event the compositions inadvertently enter the mouth during application to the face or while the shaving operation is being performed. The total amount of additives including the polyhydroxy alcohol preferably may comprise from about 2 to 15% by weight of the total composition. Preferably, such additives comprise a major proportion by weight of the polyhydric alcohol. An example of one such composition comprises 3 to 12% by weight of soap, 70 to 85% by weight of dimethyl sulphoxide, and additives in an amount of 8 to 17% by weight, of which a major proportion of the additive is a polyhydric alcohol.

As soap component, there may be employed, from 3 to 30% by weight of the total composition, stearate soaps or soaps of other fatty acids, e.g. triethanolamine oleate, the triethanolamine oleate soaps of coconut oil fatty acids, and of soya oil fatty acids. Preferably, the soap component is provided by addition of the selected fatty acid and triethanolamine as separate ingredients. Alternatively, the fatty acid component may be a blend of different acids.

In accordance with the invention, there may be used as the "soap" component, one or a combination of the commercially obtainable synthetic detergents and thickeners, for example, Promulgen "G", a polyethylene glycol ether of a fatty acid; Pluracol V-10, a polyoxyalkylene polyol; Miranol, and Ninol 128 Extra, a coconut fatty acid amide. The words "Pluracol" and "Ninol" are Registered Trade Marks.

In packaging the components in conventional aerosol containers, the composition preferably constitutes substantially 92% of the contents, the remainder being a propellant, for example a polyhalogenated hydrocarbon. The following propellant systems may for example be employed: isobutane, *n*-butane, to the extent of from 1 to 50% preferably 1,1,2,2,tetrafluorethane, monofluortrichlormethane, trichlortrifluorethane, or blends thereof. Nitrous oxide, carbon dioxide and nitrogen may also be used in certain applications of this aspect of the invention. In such cases, products of lotion consistency will usually be emitted from the containers rather than foamed lathers.

In another particularly useful application of the invention, the substantially non-aqueous component comprises an alkaline shaving soap mixture (e.g. in an amount of 5 to 80% by weight) and a gelling substance comprising a copolymer of acrylic acid and polyallyl sucrose which may contain varying amounts of allyl groups per molecule (e.g. in an amount of 0.3 to 5% by weight).

The invention may also be used in the preparation of pharmaceutical preparations particularly useful for topical applications. Such preparations, in addition to containing the pharmaceutical component(s), the dimethyl sulphoxide, and the gelling substance may also include conventional excipients and may be in the form of thick creams, pastes, and salves.

It has been found that for providing gelled compositions, the dimethyl sulphoxide may again be included with the non-aqueous components in concentrations as low as 20% by

weight of the total composition to obtain usefully raised temperatures on admixture with water. Similarly, the concentration of dimethyl sulphoxide may be raised as high as 95% by weight of the total composition, as desired, to obtain optimum heating effect while still deriving the benefit of the particular additive included and the gelled form of the composition. With respect to this foam, It has been found that, even in such a high proportion of the dimethyl sulphoxide to the non-aqueous component, upon addition of water, the temperature rises from 60°F., for example, to no higher than 90°F. The proportion of dimethyl sulphoxide, as included in non-aqueous gelled compositions is present in concentrations of from 20 to 95% by weight of total composition, for temperature rises of, say 15°—30°F.

The preferred gelling substances for use in the exercise of the invention are the copolymers of acrylic acid and a polyallyl sucrose varying in amounts of allyl groups per molecule. These are exemplified and obtainable commercially as Carbopol 940, Carbopol 934 and 941 (The word "Carbopol" is a Registered Trade Mark). The substances may be employed in concentrations as low as 0.3% by weight of the total composition to provide desirable gel consistencies. They may be included in concentrations as high as 5.0% by weight, although thicker products are obtained and economics mitigate against such higher concentrations. Preferably the gelling substance used is Carbopol 940 in concentrations from 0.5 to 1.5% by weight of the total composition. The thickness afforded by the gelling substance may be further controlled by the ratio of the alkalinity of the component system carried in the dimethyl sulphoxide; e.g., the soap or other base, to the amount of the Carbopol, as is already known in the use of such thickeners. The consistency of the gels can be still further controlled by the nature of the alkaline ingredient; e.g. triethanolamine, diisopropanolamine, alkali metal hydroxide, depending upon the molecular size and structure of such ingredient(s).

It has been found that if there is included in the dimethyl sulphoxide-containing shaving compositions in gel form an amount of a polyhydric alcohol up to 50% by weight of the total composition, and preferably between 25 and 45%, the bubbles of the shaving soap lather formed by these compositions also appear to have their elasticity appreciably enhanced, since they do not break during the evolution of heat caused by the ultimate addition of water. As in the case of the flowable shaving compositions, glycerine, propylene glycol and dipropylene glycol have been found to be particularly useful for such purpose.

Additives of the types described for the flowable shaving compositions may also desirably be included for the purpose of enhancing various characteristics of the shaving compositions containing dimethyl sulphoxide and the gelling substance. In these compositions, however, the total amount of additives including polyhydroxy alcohol preferably may comprise from about 5 to 80% by weight of total composition. Preferably, such additives again comprise polyhydroxy alcohol in a major proportion by weight.

Referring again to the broader aspects of the present invention, generally, the novel mixtures may include, in addition to the principal heat-producing composition containing dimethyl sulphoxide and the aforementioned substantially non-aqueous components including the gelling substance, such other substantially non-aqeous ingredients as may be necessary or desired for furthering the intended use of the final product. Thus, where the compositions are to function as soaps, there may be included ingredients such as later-enriching materials and emollients. Alternatively, the compositions may exclude lather-enriching materials when a latherless soap product is intended.

Pharmaceutical preparations, may contain conventional excipients in addition to the active pharmaceutical component(s) and the dimethyl sulphoxide and may be in the form of liquids, lotions, creams, pastes, salves, tablets, capsules and sticks.

Other substances incidental to the use for which a particular heat-evolving mixture is intended, for example inert ingredients which act as carriers, fillers and/or extenders, may be admixed with dimethyl sulphoxide, and the gelling substance when included, as deemed desirable.

The following Examples illustrate the invention. The word "Freon" used in these Examples is a Registered Trade Mark.

EXAMPLE 1

Preparare a soap base by a conventional mixing operation utilising the formulation given below.

A. Soap Base	% by Wt.
Coco-Stearic Acid 30/70 Blend (eq.wt.262)	7.500
Cetyl Alcohol (N.F. grade)	0.750
Lanolin (cosmetic grade)	0.750
Triethanolamine (e.q.wt. 140)	4.500
Dipropylene Glycol	3.000
Glycerine USP XI	3.000
Dimethyl Sulphoxide	80.000
Perfume	0.500
	100.000

Package the soap base, resulting from the above formulation, in conventional aerosol containers with a propellent system to form a finished aerosol shave cream product consisting of the following:

B. Finished Product:	% by Wt.
Soap Base of A above	92.000
Propellant, "Freon" 12*/114**, a blend having a vol.ratio of 57/43	8.000
	100.000

*Dichlorodifluormethane
**Dichlorotetrafluoroethane

Dispense the shave cream for use in the usual manner and apply water to obtain a warm lather.

EXAMPLE 2

Mix the ingredients set forth in the formulation below to form a soap base:

A. Soap Base	% by Wt.
Miranol C2M (Anhyd.)	2.5
Triethanolamine	2.5
D. P. Stearic Acid	3.0
Propylene Glycol	7.0
Promulgen "G"	2.0
Glyceryl Monostearate	0.5
Dimethyl Sulphoxide	81.75
Dreyer Bouquet No. 22879	0.7
Insoluble Saccharin	0.05
	100.00

Introduce the soap base by a conventional filling operation into aerosol containers together with a propellent system to form a finished aerosol shave cream product consisting of the following:

B. Finished Product:	% by Wt.
Soap Base of A above	92.00
"Freon" 12/114/Isobutane, a blend having a vol. ratio of 51.3/38.7/10	8.00
	100.00

Use the shave cream in the presence of water for a warm lather.

EXAMPLE 3

Mix the following ingredients to prepare a soap product:

Components	% by Wt. A.	% by Wt. B.
Triethanolamine	2.5	2.5
Miranol C2M (Anhyd.)	2.5	2.5
Propylene glycol	7.0	7.0
Promulgen "G"	2.0	2.0
Glyceryl monostearate	0.5	0.5
D.P. Stearic Acid	3.0	3.0
Dimethyl Sulphoxide	71.45	61.45
Carbowax	10.0	20.0
Saccharin (insol.)	.05	.05
Deodorant No. 32321	1.07	—
Dreyer Bouquet No. 23879	—	1.0

Both soap preparations A and B, when separately used for cleansing by application of cool water, afford the distinct sensation to the user of comfortable warmth although preparation A has greater effect in this reward, due to the greater proportion of dimethyl sulphoxide present therein.

EXAMPLE 4

Prepare a base concentrate for a shave cream preparation by admixing the ingredients given below:

A. Ingredients Base Concentrate	% by Wt.
Miranol C2M (Miranol Chemical Co.)	2.5
Triethanolamine	2.5
Stearic Acid	3.0
Promulgen "G"	2.0
Glyceryl Monostearate	0.5
*Pluracol V-10 (Wyandotte Chem. Co.)	4.0
**Ninol 128 Extra (Stepan Chem. Co.)	2.0
Dimethyl Sulphoxide	70.0
Propylene Glycol	11.45
Saccharin	0.05
Orbis Solvent Mask No. 7267) Perfumes	1.0
Dreyer Bay 22954)	0.5
Lauryl Di-Methyl Amine Oxide (63% Active)	0.5
	100.00%

*A polyoxyalkylene polyol
**A coconut fatty acid amide

As in Example 1 and 2, package the above soap base concentrate with the propellent system given below, in conventional aerosol containers, to produce the finished aerosol shave cream product as below:

B. Finished Product	% by Wt.
Base Concentrate of A above	92.0
"Freon" P-12/P-114/Isobutane 51.3/38.7/10.0	8.0
	100.0%

EXAMPLE 5

Prepare a gelled soap base of the brushless type by a conventional mixing operation utilising the formulation given below:

Soap Base	% by Wt.
Dimethyl Sulphoxide	90.0
Carbopol 940 (Goodrich)	1.0
Ninol 128 Extra (Stepan)	7.5
Perfume	1.5
	100.0%

Package the gelled soap base, resulting from the above formulation, inconventional squeeze-tube containers.

EXAMPLE 6

Mix the ingredients set forth in the formulation below to form a gelled soap base of the brushless type:

Soap Base:	% by Wt.
Dimethyl Sulphoxide	90.0
Carbopol 940	1.0
Ninol 128 Extra	5.0
Pluracol V-10 (Wyandotte)	2.5

Perfume	1.5
	100.0%

Introduce the soap base by a conventional filling operation into squeeze-tube containers.

EXAMPLE 7

Prepare a base concentrate for a shave cream preparation by admixing the ingredients given below:

Ingredients Base Concentrate	% by Wt.
Dimethyl Sulphoxide	90.25
Carbopol 940	0.75
Neofat 255 (Armour)	4.0
Triethanolamine	3.5
Perfume	1.5
	100.00%

As in Examples 5 and 6, package the above soap base concentrate in conventional squeeze-tube containers.

EXAMPLE 8

A later type soap base is prepared by admixing the following ingredients:

Soap Base	% by Wt.
Dimethyl Sulphoxide	50.0
Carbopol 940	1.5
Neofat 255	4.0
Triethanolamine	4.5
Ninol 128 Extra	5.0
Propylene Glycol	33.5
Miranol C2M	2.5
	100.0%

EXAMPLE 9

Prepare a heat-evolving analgesic rub by mixing the ingredients given in the formulation below:

Analgesic Rub	% by Wt.
Dimethyl Sulphoxide	79.3
Carbopol 940	1.5
Camphor	5.0
Menthol	5.0
Eucolyptol	2.0
Pine Oil	1.5
Clove Oil	0.5
Methyl Salicylate	5.0
Diisopropanolamine	0.2
	100.0%

EXAMPLE 10

An analgesic rub is prepared from a formulation similar to that of Example 9 with the exception that 3% by weight of the charge of the dimethyl sulphoxide is replaced by the same amount of benzocaine (ethyl amino benzoate).

EXAMPLE 11

A warming aromatic chest rub for colds and muscular aches, is prepared from the following formulation.

Aromatic Chest Rub	% by Wt.
Dimethyl Sulphoxide	88.3
Carbopol 941	1.0
Camphor	4.0
Menthal	3.5
Thymol	1.5
Eucolyptol	1.5
Diisopropanolamine	0.2
	100.0%

EXAMPLE 12

Mix the ingredients listed below to prepare another self-heating analgesic rub formulation:

Analgesic Rub	% by Wt.
Dimethyl Sulphoxide	74.8
Carbopol 941	1.0
Menthol	10.0
Methyl Salicylate	10.0
Polysorbate 80 (polyethylene oxide sorbitan mono-oleate)	4.0
Diisopropanolamine	0.2
	100.0%

EXAMPLE 13

Utilising the ingredients of the formulation below, prepare a composition suitable as a heat-evolving analgesic rub:

Analgesic Rub	% by Wt.
Dimethyl Sulphoxide	82.8
Carbopol 940	1.0
Glycol Monosalicylate	15.0
Methyl Nicotinate	1.0
Diisopropanolamine	0.2
	100.0%

EXAMPLE 14

Prepare a warming analgesic rub by mixing the ingredients of the following formulation:

Analgesic Rub	% by Wt.
Dimethyl Sulphoxide	77.2
Carbopol 940	1.2
Camphor	3.5
Methyl Salicylate	17.5
Capsicum Oleoresin	0.3
Diisopropanolamine	0.3
	100.0%

EXAMPLE 15

An analgesic rub is prepared from the following formulation:

Analgesic Rub	% by Wt.
Dimethyl Sulphoxide	87.2
Carbopol 940	1.3
Histamine Dihydrochloride	0.1
Oleoresin Capsicum	0.1
Methyl Nicotinate	1.0
Glycol Monosalicylate	10.0
Diisopropanolamine	0.3
	100.0%

As will be apparent to those skilled in the pharmaceutical and cosmetic arts, various other substances may be used for admixture with dimethyl sulphoxide to prepare heat-evolving compositions suitable for topical and other uses, and with the inclusion of a gelling substance when such form is desired, for example, choline salicylate, turpentine, sassafrass, hyoscyamus extract, and oil of mustard. The compositions of the invention may also be utilised to formulate de-icing compositions which, for instance, may be applied to windshields covered with ice or snow to melt the same. As stated hereinbefore, the invention may usefully be incorporated also in the preparation of shampoos and hand lotions and creams as well as in pharmaceutical compositions for topical or internal application.

Although the compositions of the invention offer the greatest advantage when they are prepared with substantially non-aqueous components in certain instances some water may be included in the compositions as a solvent, provided that the amount is sufficiently low for the composition still to evolve heat on being subsequently mixed with water.

WHAT WE CLAIM IS:—

1. A composition of matter capable of producing heat on being mixed with water comprising dimethyl sulphoxide and a substantially non-aqueous gelling substance or soap, the dimethyl sulphoxide being present in an amount of 20 to 95% by weight of the total weight of the composition.

2. A shaving composition according to Claim 1 comprising dimethyl sulphoxide and a soap.

3. A shaving composition according to Claim 2 comprising from 3 to 30% by weight of soap.

4. A shaving composition according to Claim 3 comprising from 3 to 30% by weight of soap and as additives solubilisers, emulsifiers, foam stabilisers, emollients or lubricants.

5. A shaving composition according to Claim 4 in which the additives comprise from 2 to 15% by weight of the final composition.

6. A shaving composition as claimed in Claim 5 containing from 3 to 30% by weight of soap and in which the additive component comprises a major proportion of polyhydric alcohol.

7. A shaving composition according to any of the preceding claims in which the dimethyl sulphoxide makes up 25 to 85% by weight of the composition.

8. A shaving composition suitable for packaging in aerosol containers, according to any of claims 1 to 7, which comprises from 3 to 12% by weight of soap, from 70 to 85% by weight of dimethyl sulphoxide and additives in an amount of 8% to 17% by weight of which a major proportion of the additive is a polyhydric alcohol.

9. A lathering shaving composition according to Claim 7 or Claim 8 in which the proportion of polyhydric alcohol is between 3 and 7% by weight of the total composition.

10. An aerosol package containing a shaving composition according to any one of Claims 4 to 9 and a propellant therefor.

11. An aerosol package as claimed in Claim 10 wherein the shaving composition comprises substantially 92% of the contents thereof and the remainder is propellant.

12. An aerosol package as claimed in Claim 11, wherein the propellant comprises a polyhalogenated hydrocarbon.

13. A composition according to Claim 1 substantially as described herein with reference to any one of Examples 1 to 4.

14. A composition according to Claim 1, comprising a gelling substance and dimethyl sulphoxide.

15. A gelled composition according to claim 14 comprising a gelling substance, at least one further non-aqueous component and dimethyl sulphoxide.

16. A gelled composition as claimed in Claim 15 comprising from 0.3% to 5% by weight of the gelling substance, from 5% to 80% by weight of the further non-aqueous component, the remainder being dimethyl sulphoxide.

17. A gelled composition according to Claim 15 or Claim 16 in which the gelling substance is a copolymer of acrylic acid and polyallyl sucrose.

18. A gelled composition as claimed in any of Claims 14 to 17 wherein the further non-aqueous component comprises a pharmaceutical substance.

19. A gelled shaving soap composition according to any of claims 15 to 17, comprising an alkaline shaving soap mixture, a copolymer of acrylic acid and polyallyl sucrose, and dimethyl sulphoxide.

20. A gelled shaving soap composition according to Claim 19 comprising from 5% to 80% by weight of a non-aqueous alkaline shaving soap, from 0.3% to 5% by weight of a copolymer of acrylic acid and polyallyl sucrose, the remainder being dimethyl sulphoxide.

21. A gelled shaving composition according to Claim 19 or Claim 20 containing in addition a minor amount of a polyhydric alcohol.

22. A gelled shaving composition according to Claim 21 in which the polyhydric alcohol is present in an amount of from 25% to 45% by weight of the composition.

23. A gelled shaving composition according to any one of Claims 19 to 22 which is modified in that it comprises from substantially 5% to substantially 80% by weight of non-aqueous additives as herein before defined.

24. A composition according to Claim 15

substantially as described herein with reference to any one of Examples 5 to 15.

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